



GRAIN

PLANT MANAGEMENT AND OPERATION

AUGUST • 1940



DO YOU UNDERSTAND EINSTEIN?

—SUPPOSE we took a trench mortar or some such piece of artillery, and shot a solid steel ball into the air in such a manner that it would descend right back into the mouth of the mortar?

We have observed the flight of the projectile and, if presented on a graph, this flight would be represented by a single vertical line. However, another observer on the moon has also made a graph and his observation of the flight is represented by an arc.

There are two simple reasons which account for the variance of opinion: first, the revolving of the earth; second, the difference in the viewpoints of the two observers. This is a simple example used in explaining the law of relativity to laymen.

Most of us have heard of this law of relativity, quite a few of us have a general idea of its meanings, but in all probability none of us knows anything about the mathematical basis for this law, but it is easy to understand what a fresh outlook we can obtain if we look at our business through another man's eyes. That's one of the chief reasons for the esteem in which the Society is held by its members.

New ideas, fresh outlooks, different slants on the business and an opportunity to participate in the more widespread activities of your profession are some of the many benefits obtained from membership in the Society. Write the Secretary today for an application blank and a blank check for a great deal of profitable knowledge and pleasure.

SOCIETY OF GRAIN ELEVATOR SUPERINTENDENTS

Board of Trade Building

Chicago, Illinois

Editorial

THAT GUY IN THE GLASS

SOME folks sometimes wonder about the Grain Plant "boss," or marvel at the good job he does at one of the toughest businesses there is. That's natural, but let's try to dig up a few of the nice things about the industry, too. Not in an effort to detract from the sterling qualities and abilities of the men at its head, but rather in an attempt to make them sit back and smile in satisfaction—take their minds off the too practical problems of the rush season—with the realization that it's a "plenty good business at that."

First of all there's the certain knowledge that grain plant men are indispensable factors in the most indispensable business on earth—procuring food. They have the satisfaction of doing an absolutely essential job well—much better than munition manufacturing or pulp-magazine writing, isn't it?

The fact that this industry is such a basic one lends a feeling of security to the men in it. After all, everybody is ultimately engaged in getting food. (Even though some go after it in a most indirect and circuitous manner, certain government workers get their food by dumping other food into garbage heaps!) Men who work with a commodity that is in continuous demand are themselves in continuous demand to handle it. Therefore, in spite of seasonal activities and crop variations there is always a certain amount of work to be done, and as men in the industry advance to higher positions they transcend the subjugation to seasonal activity to a greater extent.

Then, too, prices in food industries are, comparatively, much more staple than prices in other industries because of the law of supply and demand. There is a comparative minimum below which the food market does not fall and thus a fairly healthy market at least is always assured. There are economic factors controlling over-production and surplus stores so that prices will not rise too far (true, they do fall far enough at times). At least, the grain industry is better off than those luxury businesses which fold up completely in times of stress. Much more could be added in comparison with many other fields, but your activity hums along quite steadily.

Then there is always the atmosphere of sincere good will and fellowship which surrounds the deserving elite. Much of this is true because of the absence of strenuous competition among the Supers themselves. They don't have to beat the other Super out of orders or supplies or such things. Pity the poor fellows who do have to do such things. When competition is direct, serious and hard, it's exceptionally easy to make enemies. There certainly isn't ill-feeling among Supers!

Last of all, the Super is lucky because he's in the profession to which he belongs. Locke would say it's the law of causal necessity. If you didn't belong you wouldn't be a Superintendent.

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Barley Varieties and Their Identification

By Drs. F. R. Immer and W. W. Brookins
University Farm, St. Paul

Also Includes the Answers to Principal Questions Asked at the Barley Conference

PERHAPS the most dominant factor determining the quality of malting barley is the weather. The particular combination of weather and soil which produces the desirable mellow quality is a difficult one and in any event is mostly beyond the control of the producer. Proper harvesting and threshing of the grain, maintenance of reasonable purity, control of degrading factors as defined by the Grain Standards Act, and choice of variety are in a large measure well within the range of control of the producer and country elevator operators.

Variety may be generally considered of somewhat minor importance to the other factors mentioned as long as malting varieties maintain their original characteristics. However, when a variety becomes generally identified with two-row and Trebi mixtures, through mixtures picked up on the farm as a result of using the same seed stock for many years, the question of variety and variety identifications becomes very important. Many old farm varieties have been known to contain as high as 50 per cent of 2 row, and varying quantities of Trebi. Fortunately, these are being rapidly replaced with reasonably pure varieties.

Mixtures an Increasing Problem

MIXTURES of rough and smooth bearded varieties are becoming more of a problem. Maltsters object to these mixtures because of their effect upon the choice grade of malt. Wisconsin "38" and Velvet varieties are coming into more general use for malting purposes and ripen from 6 to 7 days apart. Mixtures of Wisconsin "38" in Velvet are undesirable because of the effect on mellowness due to the difference of maturity of the two varieties.

In identifying the kernels of barley varieties a brief description of kernel structure is necessary. The kernel is spindle shaped, broadest near the center, and tapering gently to the beard or awn end. The opposite end, or base, sometimes tapers abruptly, and may be sharply broken off. This is the point at which the kernel is attached to the barley spike or head. Viewing the kernel on the side which bears the crease, the crease is observed to extend from the beard to the base of the kernel. Using a hand lens, a small structure attached at the base lying within the crease can be

observed. This is the rachilla, which is a slender wedge extending about one-third the length of the kernel. The rachillas bear either short or long hairs, depending upon the variety, and they can be seen with the aid of a hand lens.

On the crease side of the kernel, at the widest part, the rounded portions on either side of the crease are referred to as the cheeks. The side opposite the crease is referred to as the back or lemma side. On each margin or edge of the kernel, and in the center of the lemma extending the length of the kernel, are slight ridges referred to as central and lateral nerves.

If the barley hull is peeled off, the skin becomes visible. This is the seed coat, which is usually transparent. The cells lying beneath constitute the aleurone layer, which may be white or blue in color and is visible to the eye. The color of the aleurone is easily observed in pearled samples.

Identifying Characteristics

KERNEL characters used in identifying varieties of barley are given below:

Velvet: Smooth awns. Long haired rachilla. White aleurone. Barbs on the lateral nerves. Horseshoe shaped depression at the base of the lemma. Very little wrinkling on the back, or lemma. Kernels not as large as Wisconsin "38," in general. Velvet is more yellowish in color in unweathered samples than Wisconsin "38" and is more uniform in kernel size.

Wisconsin "38.": Smooth awns. Long haired rachilla. Often 5 to 15 per cent of the rachillas are abortive, or extremely short. White aleurone. Fewer barbs on the lateral nerves than in Velvet. Indentation across the base of the lemma rather than horseshoe shaped depression as in Velvet. Kernels generally larger than in Velvet but not as uniform in size. Kernels rather evenly colored white in unweathered samples.

Glaboron: Smooth awns. Long haired rachilla. Mixture of kernels with blue and white aleurone; one-fourth to one-half of barbs on the lateral nerves. Attachment of lateral kernels wide and thin. Tendency for kernels to be more twisted on the crease side than in Velvet or Wisconsin "38."

Manchuria: Rough awns. Short haired rachilla. Mixture of kernels with blue and white aleurone; one-

fourth to one-half of the kernels usually being blue. Kernels wrinkled on the back of the lemma and on the cheeks. Weak to strong barbing on the nerves of the lemma.

Oderbrucker: Rough awns. Short haired rachilla. White aleurone kernels only. Rather smooth on the back, or lemma, and on the cheeks. Oderbrucker and Manchuria are very similar in kernel type. They may be separated on the basis of less wrinkling on the lemma and cheeks in Oderbrucker than in Manchuria. Oderbrucker and Manchuria are difficult to distinguish from one another.

Peatland: Rough awns. Short haired rachilla. White aleurone kernels only. Kernels small, flat and sometimes very broad in relation to length. Very pronounced wrinkling on the back, or lemma. Kernels generally have a harsh appearance.

Trebi: Rough awns. Short haired rachilla. All kernels have blue aleurone. Lateral nerves with few barb or none at all. Lemma almost free from pronounced wrinkles. Kernels longer than in any other variety described above. Twisting of the crease very noticeable in this variety.

Simple Key to Classification

A SIMPLE key to the classification of the commonly grown six-rowed varieties of barley in Minnesota is given below. This may be used to serve as a guide in classification, more detailed descriptions of the varieties being given in the varietal descriptions above.

- A. Smooth awns . . . all varieties with long haired rachillas.
- B. Mixture of blue and white aleurone kernels—GLABRON.
- BB. White aleurone only.
- C. Horseshoe shaped depression at base of lemma. Lemma relatively smooth.—VELVET.
- CC. Crease across base of lemma. Lemma wrinkled—WISCONSIN "38."
- AA. Rough awns . . . all varieties with short haired rachillas.
- B. Blue aleurone only—TREBI.
- BB. Mixture of blue and white aleurone kernels—MANCHURIA.
- BBB. White aleurone only.
- C. Kernel shape like Manchuria. Lemma smooth—ODERBRUCKER.
- CC. Kernels small and flat. Very pronounced wrinkling of lemma—PEATLAND.

Those Spots Before Your Eyes?

SUCCOTASH?

Heaven forbid!

But brother, if you haven't as yet had your share of those delirious spots before your eyes—just wait, you've got yours coming, particularly when this farm-stored wheat begins to move!

While admixtures have not made their appearances in all terminals and sub-terminals, some are reporting as high as 24 per cent. Federal Grain Supervisor H. E. Nelson of Omaha says the country elevators do not have the necessary cleaning equipment for removing the excessive winter or red oats from the wheat and so are shipping the mixture to market in the same status in which they received it from the farm.

Considerable of the wheat contains excessive oat mixtures in Southeastern Nebraska, he says, explained by the farmers as occurring through the fact that heavy snows lay on the ground all winter and came before the ground could freeze, thereby permitting many oats to grow which otherwise would have been killed on account of cold weather and freezing. Admixtures of other wheats have not yet made their appearance and probably will not do so for a short time yet if there be any, he explains, as these mixtures generally originate in the extreme west end of the state.

Dockage has been the most outstanding factor in the wheat, Mr. Nelson reports, no particular foreign material problem having developed in the Omaha market as yet. Up to the present time the new hard winter wheat receipts have been of excellent quality with much of the grain testing well over 60 pounds.

75% Showing Excessive Dockage

SEVENTY-FIVE per cent of the wheat contains an assessable amount of dockage from certain sections of north central Kansas, says Federal Grain Supervisor A. R. Matters of St. Joseph, Mo. And probably half of the receipts from the territory show the oats and barley mixtures carry from one to eight per cent dockage, he says.

This is a much higher percentage than usual for this market. The wheat being shipped from north central Kansas also shows quite a percentage of weed seeds, which is easily separated in the regular method of dockage determination.

The wheat coming from northeastern Kansas, southeastern Nebraska, and sections of northwest Missouri, has quite a mixture of oats and a little barley. This is probably due to the fact that following harvest last year the volunteer grain did not sprout before the seedbed was prepared for wheat, and the oats came along with the wheat. The weather the past winter was such that there was but little winter killing, so the crop harvested this year contains a mixture of oats and wheat, according to Mr. Matters.

Dockage Increase of 3 to 8% Over Last Year

FEDERAL Grain Supervisor Martin Schuler of Kansas City writes that inspection records show that 11.2 per cent of Hard Red Winter receipts carry dockage this year as compared to about eight per cent last year. Soft Red Winter dockage figures are 17.7 per cent this year as compared to 10.0 per cent last year.

There has been an increase in the number of cars grading "mixed" grain, 40 as compared to eight last year, but this should not present too serious a problem. Protein average, though of wide range, is slightly below that of last year. This is also true of test weight which will average approximately 59.2 pounds for the Hard Winter wheat and 58.4 pounds for the Soft Winter wheat.

Tabulation of 10,162 Cars

RESULTS of a tabulation of 10,162 cars inspected during July are given by Mr. S. P. Fears, Chief Inspector, Missouri State Grain Inspection Department, of Kansas City. Receipts of new wheat to this market were of a high quality as to grade as about 92 per cent of them graded on the factor of test weight alone, 7,829 being Nos. 1 or 2 grade.

The tabulation of July cars showed that 1,126 cars had dockage composed of chess, lambsquarters, pig weed, and red oats, the chess in red wheat running 15, 20, and 25 per cent; 229 cars graded on foreign material consisting almost entirely of rye. Thirteen cars grading "mixed" grain, wheat and rye, rye averaging 25 per cent, seven cars with wheat from 52 to 55 per cent, rye 48 to 45 per cent. Four hundred and twenty-four cars graded "mixed" wheat but no data was available on the percentages of mixture. Seventeen cars graded garlicky.

Fine Weed Seeds Present

DOCKAGE, writes Federal Grain Supervisor Howard N. Holmes of Enid, consisting mostly of fine weed seeds, barley and oats, is being encountered in greater profusion than heretofore in that market. The weed condition was due mostly to late wheat which did not sprout until late in February and early in March.

At the beginning of the movement of new wheat in the Fort Worth district, Federal Grain Supervisor C. W. Griffin tells us, the crop was unusually free from dockage and foreign material, and was of excellent quality—test weight ranging from 60 to 63 pounds per bushel. However the last fifteen days we have been receiving some wheat containing dockage. Most of this dockage consists of oats and barley with a few cars showing excessive weed seeds and weed stems.

More Headaches Ahead

WE will doubtless have some grading problems when the large amount of wheat that has been stored on the farms is delivered to the terminal markets later in the season, which in my opinion, says Mr. Griffin, will be caused by lack of facilities for handling wheat containing excessive moisture.

Rye and other grain mixtures in the Hutchinson territory were, in the opinion of Federal Grain Supervisor Ross Chambers, Jr., caused when some fields were given up as lost and other grains planted along with the wheat. As an example he tells of a field that was planted to oats with the result that the mixture at harvest time consisted of volunteer rye and barley along with the oats and wheat.

Very little admixtures of either dockage or foreign material of any kind have found their way into the St. Louis market as yet, Federal Grain Supervisor Charles B. Barron states. In fact he insists the new crop is the finest quality of wheat handled in many years. Even the percentage of off-grade wheat from the standpoint of admixtures of foreign material and other grains is exceptionally small.

Kansas

MR. ERLAND Carlsson, Chief, Kansas Grain Inspection Department, of Kansas City, reports that dockage is running a trifle heavier than it did last year, 3.3% higher on hard wheat and 7.7% higher on soft

wheat. Before harvest, many of the fields were very weedy, but in spite of this results are quite good. Most of the wheat during the first two weeks tested from 59 to 64, running No. 1.

The 1940 Kansas crop is known as "the miracle wheat crop." Due to lack of moisture there was very poor growth in the fall and by early spring a poor condition was indicated. Then spring rainfall considerably above normal throughout the spring growing season produced splendid growth and early estimates were increased by 60% or more.

All early wheat was of high test weight, with a low percentage of foreign matter dockage; while later wheat was heavy in weed seed dockage and considerably lighter in test weight as a result of rust infected areas and dry, hot winds.

It is true that dockage is heavy as compared with last year, but 1939 was a year in which dockage hit a below average level. Inspection data also shows that weed seed dockage increases westward and northwest in the later maturing wheat.

Only 1% of inspections graded tough this year, which is the lowest figure at Wichita since the 1936 crop. The average moisture to August 1 was 11.0%; a year ago, 13.0%; two years ago, 11.3%.

At Wichita 36.5% of inspections graded Dark Hard Winter, while at Hutchinson 59.4% graded Dark Hard Winter. These figures compare with 22.5% and 60.8% in 1939, and 37.1% and 61.9% in 1938 respectively.

About 2.9% degraded on account of excessive rye. This is about twice as many as for the two previous crops but materially less than prior thereto. The amount of smutty wheat is slightly more than for the past two years although the 0.3% is considered very low.

It is believed the crop in this area went into storage in a little better condition than the average year, although in the Hutchinson area, where the crop matured later, rains somewhat delayed harvest. However, the wheat was stored in a better condition than the two previous crops and little trouble is anticipated. The only troublesome factor in evidence is that of dockage, which is always more or less a problem at the Hutchinson market owing to weed seed prevalent in wheat tributary to that market.

It's an Ill Wind

THE hurricanes that ravaged much of the South changed character as they came farther north and very benevolently ended the drought which had been troubling the Corn Belt. As they came north they lost most of their violence but retained their moisture and, on contacting the colder northern winds, released the much needed water all the way out to the Great Plains.

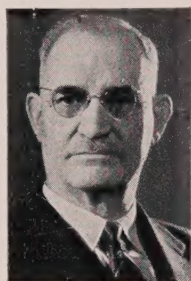
Hylton R. Brown to Carry On

HYLTON R. Brown, Senior Engineer of the Department of Agriculture working under Dr. David J. Price on dust explosion experiments, is now affiliated with the Department of the Interior, Bureau of Mines, at 4800 Forbes, Pittsburgh.

Mr. Brown is continuing his dust explosion prevention work and has asked Joseph Schmitz, Chief Weighmaster of the Chicago Board of Trade, and Arthur B. Osgood, of The Day Company, Minneapolis, to work on codes for the big and little elevators on the use of suction to remove the light floating dust from shipping and receiving legs.

May Be the Answer

THE National Fire Protection Association is advocating, and they may make it mandatory, that a cir-



cuitous wire be run on the under side of loftier belts for the purpose of grounding static. It would seem to me—if we must comply with their regulations—that a continuous braided copper mesh wire might be attached under the bolts on the outside, thus

the static could be grounded with the tail pulley as the bolts make contact. Let's hear from others.—T. C. Manning, Uhlmann Grain Company, North Kansas City, Mo.

Watchman Service and Burglar Alarm System

By E. J. Raether

WE ALL know that since the 42-hour weekly labor law became effective, cost of watchman service has gone up. Some plants have two or three watchmen now where one was sufficient before. Watchman service at the best is only a small per cent efficient.

After investigation I have found that the new Aero & Burglar Alarm Systems now being installed in the different plants have proven a great advancement over the old watchman system. All the doors, windows and openings have burglar alarms, and the inside of the plant has a more efficient fire protection and at one-half to two-thirds the cost of the old system.

Those of you who have not looked into this new service, I suggest that you do, as you will find something of value to your employer and less headaches for yourself.

On That Bursted Bin

(Photos Across Page)

HERE are the pictures of the bin that burst at our Rock Island Elevator July 21st—the result of effective "bin-stretching," writes Claude Darbe, Simonds-Shields-Theis Grain Company, Kansas City, Chapter President. Nearly half the height of the 90-foot tank collapsed at 7:40 A. M. after employees had worked furiously in a vain effort to remove enough wheat from within to prevent the break.

Electrician C. J. Hill, one of the last of fifteen to walk along a path directly beneath, saw the crack (illustrated) and noticed that it was widening as he watched. He dashed to Superintendent Charles F. Peterson who in turn warned the crew to keep well away, then everyone pitched in to help transfer the grain in the bubble-tank to another location.

Only 8,000 bushels were drawn off, however, before the gaping wall really opened its jaws, pouring some 15,000 bushels on the ground. The concrete wall slowly collapsed to the ground in huge chunks, according to Superintendent Peterson who, with other officials, watched from a point some fifty feet away. The wheat released by the break was scattered over a 100-foot area, mostly a weed patch, and was hauled away by a salvage company's trucks.

The elevator contained 160 tanks, this one of 32,000 bushels capacity, for a total of 4,000,000 bushels. The plant was erected in 1917.

G & FDNA to Louisville Oct. 13-15

THE Grain & Feed Dealers National Association will meet at the Brown Hotel, Louisville, Ky., on October 14-15, with the previous day, Sunday, set aside for many meetings of specialized interests, according to an announcement from Mr. Ray Bowden, Executive Vice President.

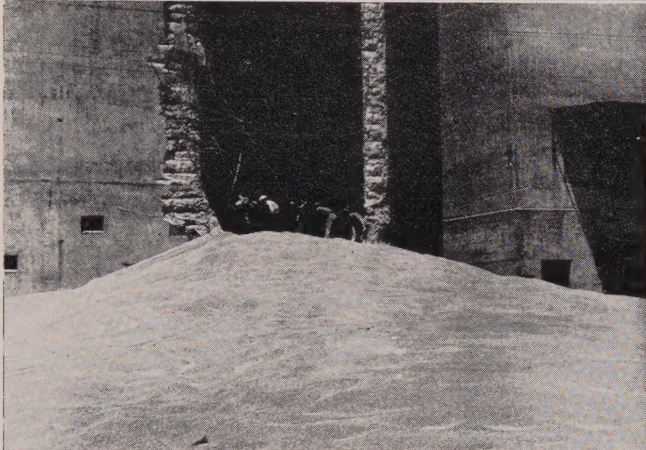
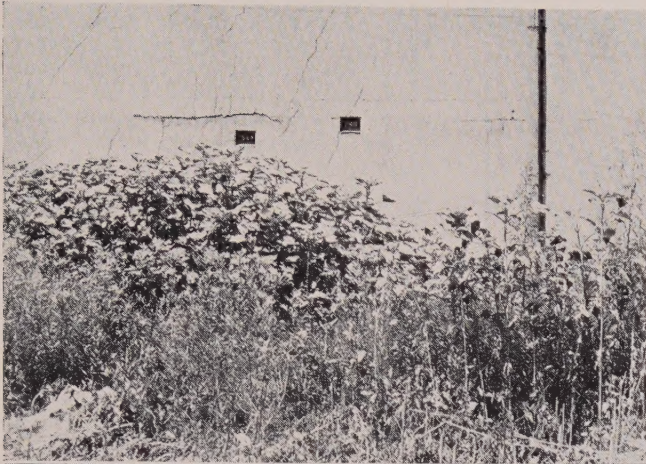
Pending conclusions of arrangements for Executive members of the Supers' Society to meet with the terminal elevator interests, no announcement is ready at this time, President Percy C. Poulton of N. M. Paterson & Company, Ltd., Fort William, states.

Carloadings Ascend

GENERAL carloadings for 1940 have kept consistently ahead of those of 1938 and 1939, trailing 1937 by only a small margin. For the week ending August 10th, 41,386 cars were loaded with grain and grain products as compared with 40,103 in 1939 and 47,890 for the corresponding week in 1938. Previous loadings totaled 41,357 for the week ending August 3rd, 46,467 for July 27th, 52,590 for August 20th, and 56,015 for July 13th.

GRAIN FLOOD; WRONG KIND

[Details on Preceding Page]



He interprets your needs to us . . .

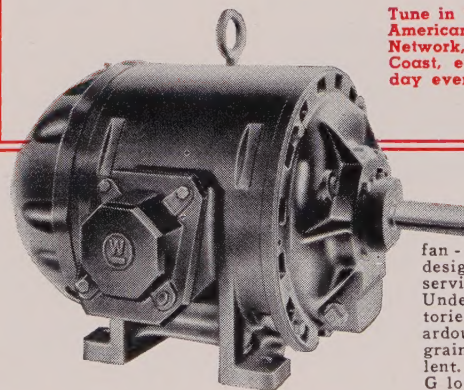
Whether it's push button control, a motor or complete electrification, your Westinghouse salesman brings you the ability of a group of engineers, skilled in supplying practical, economical solutions to elevator or milling problems. They will help you select and apply your electrical equipment most profitably.

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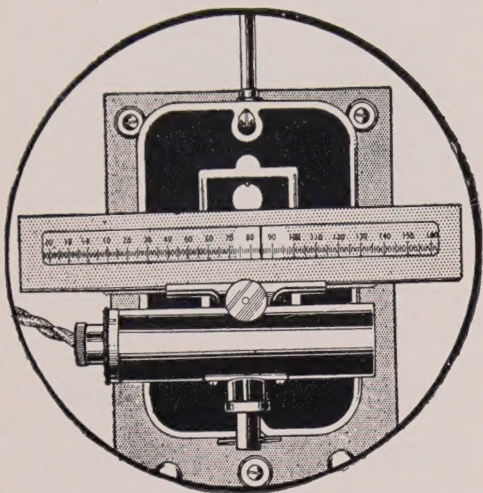
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Comparative Temperatures



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are most important when determining the condition of your stored grain.

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The Zeleny way is fast and accurate. Two minutes' time required to record temperatures at twenty levels throughout the bin.

AFL Intervenes

IN THE July number of "GRAIN" we published a dispatch from Mr. Ray Bowen, Executive Vice President of the Grain & Feed Dealers National Association, concerning a 14-week seasonal exemption from provisions of the Wage and Hours Act (See Page 16). Mr. Bowden now advises us as follows:

The American Federation of Labor intervened in this tentatively agreed to ruling so that now a decision will have to await hearings before it can be made definite. Same will probably take place in October, thus giving needed relief to terminal and sub-terminal elevators and processing elevators.

Mr. Bowden did some very effective work in tentatively getting seasonal exemptions for elevators that are operating under the Wages-Hours Law. These hearings will mean a delay. This shows what strong organization can do. If the grain dealers were organized like labor we, too, could do more effective work than we are able to do today.

Ideas to Save Conscription Trouble

1. Prepare to train more workers.
1. You will not lose your present highly skilled workers, but semi-skilled laborers of conscription age are very likely to be called.
2. Start developing older workers and women where possible.
3. Place the men you want to keep and those who have important ability in really key positions.
4. Be prepared to prove the necessity for your activity, the importance of your key workers, and the reasons why you cannot replace them.

1264 on Last Count

HAROLD WILBER'S Decatur (Ill.) Elevator (A. E. Staley Mfg. Company) recently completed 1,264 days without a lost-time accident. No wild oats or heat damage here! Can't imagine why they don't enter the Supers' Society Safety Contest and walk away with all the cups.

The Answer Has Been Found

HAROLD Wilber, A. E. Staley Mfg. Company, Decatur, Ill., has the answer!

For years we've fooled around with single and double electric eyes, brakes, rope controls, automatic stops, and this and that, to try to keep the thoughtless worker from going over the top of the man-lift pulley.

A recent inspection of the Staley plant shows how effectively they have installed and are using a brightly painted stub ladder from the top floor right up to the top of the man-lift pulley. A workman, seeing that he has passed the top floor, does not become hysterical whatsoever, for within easy reach, right along beside him, is a heavy iron ladder onto which he can step with the greatest of calmness, and hence back down to where he should have alighted in the first place.

We think this is one of the soundest arrangements to reach our attention of late for avoiding further cracked skulls, etc., etc., etc.



Can You or Can't You? That is the Question

YOU cannot grant a wage increase at the request of a group of your employees if, a national union is attempting to organize your plant. Such an act is classed as an unfair labor practice under the Wagner Act.

YOU cannot lay off men belonging to a union and still be innocent of an unfair labor practice (even if all the men in your plant belong to a union). The Labor Board finds in one such case that a company violated the Wagner Act by systematically laying off the most active union workers.

YOU cannot enable your employees to increase their earnings by hiring them to do additional work after regular hours. The Wage-Hour Division rules that an employer must pay overtime rates to workers he hired to unload freight cars at a set price per car.

YOU can avoid liability for overtime payments to your night watchman if he is employed through a contract through a private detective agency. In such cases the plant owner is not an employer as defined in the Wage-Hour law.

THE Internal Revenue Bureau rules that dismissal payments are part of your wage payments and that such payments must be considered as wages for Social Security tax purposes, so it is impossible to avoid paying taxes on dismissal payments.

FOREMEN can engage in union activities, because besides being employers they are also employees. Activities of foremen which interfere with union activities of your workers can involve you in a charge of Wagner Act violation.

THREATS to lay off or fire employees who engage in union activities are violations of the Wagner Act.

YOU can refuse to bargain with another union when your employees are already covered by an agreement concluded by you and a nationally affiliated union.

WHEN disagreements arise as to which union has the right to bargain and conclude agreements, it is not up to the employer to choose, but an election must be held to determine the majority representation.

ANY company subject to the Wage and Hour Act cannot deny a Wage and Hour inspector access to employee records even though there are no reasonable grounds to believe that your company has violated the law.

THE National Labor Relations Board has jurisdiction over all companies who engage in interstate commerce, no matter what the percentage, or even if manufactured materials are obtained outside the state.

Saving Money Just Another Way to Add to Profits

Says Plant Manager **GILBERT P. LANE** of Arcady Farms Milling Company, Riverdale

OF LATE practically all of the the newly erected grain handling and processing plants have centered their electrical equipment in a separated, dust-tight room, a step we inaugurated in 1931. While this is diametrically opposed to the multiple application of Class 2, Group G equipment, nevertheless the savings in the original installation cost is quite a healthy item.

Before I recite another innovation we've inaugurated, let me first point to the further advantages of one central control room, which in our case is well closeted behind two pairs of tightly fitting doors to which only Chief Electrician Leonard Danielson and myself have access.

Simplicity of maintenance is a factor involved in such an arrangement that means much to the smooth operation of any plant, whether it be grain handling or processing. Outshining this advantage, however, is the convenience of making necessary emergency replacements—and that means a lot to any busy operator.

A fourth important consideration is reduced insurance costs because of the removal from the scenes of operation of the possible chance of a dust explosion from sparks originating in the electrical equipment. Lastly, the advantage of removing the temptation of some inexperienced (electrically speaking) staff member to attempt to "fix" any device that may break down is worth much peace of mind.

Convenient Buttons Throughout

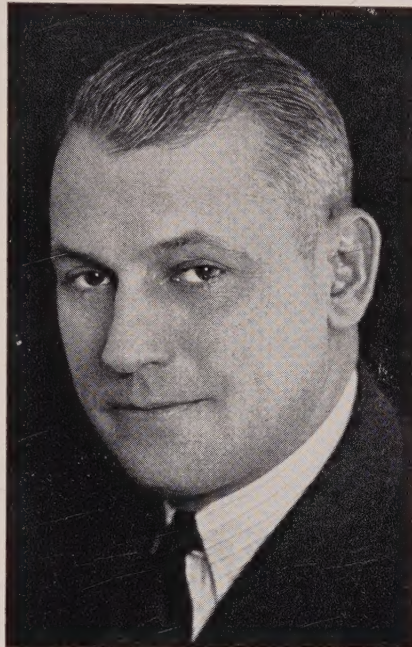
SO THAT we can use standard fixtures and lights for signaling on the operating circuits, our magnetic starters are all especially built at 110 volt operating circuits and 440 volt load circuits. (We use 1-watt 110 volt neon-glow lamps which give sufficient brilliancy—with practically no electrical energy consumption—to show when an overload has thrown out the circuit when it then burns at half brilliancy.)

Numbered starting and stopping buttons, well labeled, are located at convenient places throughout—each process being individually fused and circuited so that any trouble will not interfere with other operations. Small signal lights also inform the operator at each station whether certain distant motors are turning or not, thus chokes are avoided and the smooth operating process maintained. And, should anything go wrong, as it rarely ever does, the operator at any station can cut out all the equipment for the operation of his department without de-

lay—or even any dependent departments.

Home-Made Demand Charge Control

BY MEANS of a set of contacts mounted in a recording K.W. meter, an electric time cutout puts the contacts in correct sequence for day and night loads. We decided upon this



device because our day time demand charges in the initial bracket of our contract cost \$1.55 per K.W., whereas the night charges in the same bracket are but 85c.

This home-made demand charge control, which works quite satisfactorily in the absence of any standard product on the market at the time we built ours, lights strategically located signal lights throughout the plant when the electric load is low. Thus the operators requiring the heaviest load can increase their demand and consequently we obtain a better overall efficiency. When a desirable load has been reached, the signals automatically dim to half intensity. Conversely, when the load becomes excessive a loud horn warns department operators to lower their drain on the electric energy.

Doubtless others can work out a similar arrangement for their own requirements. Our system saves us from \$200 to \$600 a month—a tidy savings over the course of the years and another way to add profits.

THREE Scottish highlanders were captured by the Germans in an action near Abbeville. The canny Scots answered all questions put to them in Gaelic. The confused Germans finally decided they were Russians and let them go.

THE CALUMET

(Protected by U. S. & Foreign Patents)



**Increased Capacity
Perfect Discharge
Superior Wearing
Quality**



We can also furnish these buckets in a new rustless, non-sparking metal for flour and soft feed. Less than one quarter the weight of steel and at a fraction of the price of standard stainless steel.

We handle a complete stock of Norway Flathead Bucket Bolts and Spring Washers.

B. I. WELLER

SOLE OWNERS of the patent and
SOLE Licensed Manufacturers in the
U. S. under this patent.

220 W. Chicago Ave., East Chicago, Ind.

327 S. La Salle St., Chicago, Ill.

THE STRONG-SCOTT MFG. CO., LTD.
Toronto WINNIPEG Calgary
Licensed Manufacturers for the Dominion of Canada

R. R. HOWELL & CO.,
Minneapolis, Minn.
Northwest Distributors

DOES IT TAKE A DENTIST TO



WRITE OR WIRE FOR A
COMPLETE
SURVEY OR ESTIMATE

IS there any doubt that the doctor could do a kindred line, hasn't he?

OH, no," you say, "pulling teeth is a highly specialized and special experience."

ISN'T the same thing true of the weather-painting and bins? Isn't it out of the realm of ordinary engineering science that years of special experience become proficient in it?

YES, definitely so, just as much so as the pulling of a tooth!

DOES it seem logical that when your bins start to crack from settling or loading and unloading, you go to a dentist to have his own tooth pulled? Isn't experience the only teacher?

UNLESS the man who contracts to re-surface your bins goes along those exact lines, you are not following the proper procedure. You go to a dentist to have his own tooth pulled. You'll say "No!"

THE cracks in your bin wall, the etching in the mortar, the moisture in the air are each a separate problem. A different treatment is necessary. Patches have no value.

FOR thirty years we have been devoting our entire experience to the engineering of masonry structures. Our engineers are experts in the engineering science. Their experience is the basis of our dependable results. Call in those specialists and we'll give you an estimate on a job that can be guaranteed.

CAN you afford to be a doctor who pulls teeth?

IN-FIL-TRO-FLEX

BOTH SPECIFICALLY
A FLEXIBLE, THIN
WILL LAST FOREVER
BY EXPERTS WHO
DESIGNED TO

BEN J. MANY CORP.

PULL A DOCTOR'S TOOTH?

himself? He's had a lot of training along a

specialized job that requires special training

ing and re-surfacing of your concrete tanks
y concrete mixing or patching? Isn't it such
l training and experience are necessary to

eed of the skilled dentist for the doctor's bum

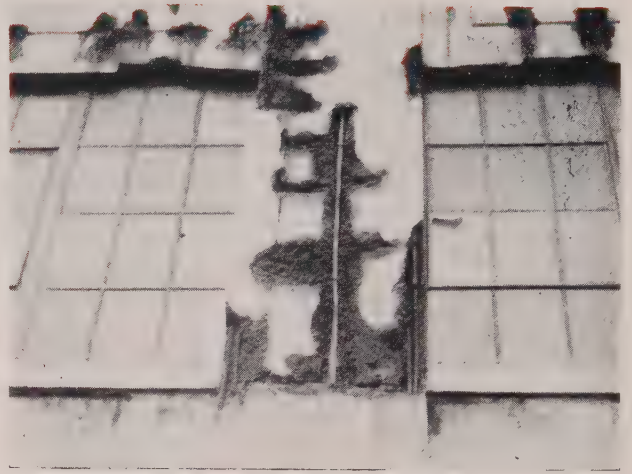
ntegrate from age and weather, when they
ng, that any concrete man could patch it up?

and weather-proof your bins has been trained
ing the logical procedure of the doctor who
Are the two examples different? We think

results from weather and the weak spots that
em. No two are alike. For each one a little
to be anchored just so to each cavity.

ur time to the re-surfacing and weather-proof-
ve become skilled in this highly specialized
ason that we can guarantee you the most
ay. Let us inspect your structure and give
ed perfect.

own tooth?



Write Today for
Additional Information
at No Extra Cost or
Any Obligation on Your Part

FLEX-A-COTE

ONS PROVIDE
THE FILM WHICH
ARS — PUT ON
SPECIFICALLY

CORPORATION

**30 N. LA SALLE ST.
CHICAGO, ILLINOIS**



Here is a grain elevator burning along the Hudson River a while back.

Fire prevention is very important to national defense, because fire is a great enemy of business activity and the proper functioning of your properties is the base line of defense for your country. Even though you are an ardent patriot, you may, in a way, be a saboteur if through your carelessness a fire occurs.

Fire Prevention Week will be observed this year during the week of October 6th-12th. With activity on the upward curve, there is a need for increased carefulness regarding fire prevention. The fire record shows that the incidence of fire increases as activity multiplies.

New Grades for Soybeans

EFFECTIVE November 20, 1940, new soybean grade standards will be:

Sec. 26.601. *Terms defined.* For the purpose of the official grain standards of the United States for soybeans:

Soybeans. Soybeans shall be dry threshed soybeans which contain not more than 25 per cent of foreign material.

Classes. Soybeans shall be divided into five classes as follows: Class I, Yellow Soybeans; Class II, Green Soybeans; Class III, Brown Soybeans; Class IV, Black Soybeans; and Class V, Mixed Soybeans.

Grades. Soybeans shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of their appropriate class.

Sec. 26.602. *Yellow soybeans (class I) defined.* This class shall include all varieties of yellow soybeans and may include not more than 5 per cent of soybeans of other colors. A slight tinge of green or olive green on soybeans otherwise yellow shall not affect their classification as Yellow Soybeans.

Sec. 26.603. *Green soybeans (class II) defined.* This class shall include all varieties of green soybeans and may include not more than 5 per cent of soybeans of other colors.

Sec. 26.604. *Brown soybeans (class III) defined.* This class shall include all varieties of brown soybeans and may include not more than 5 per cent of soybeans of other colors.

Sec. 26.605. *Black soybeans (class IV) defined.* This class shall include all varieties of black soybeans and may include not more than 5 per cent of soybeans of other colors.

Sec. 26.606. *Mixed soybeans (class V) defined.* This class shall include

all mixtures of soybeans not provided for in the classes Yellow Soybeans, Green Soybeans, Brown Soybeans, and Black Soybeans. Black Eyebrow and other bicolored varieties shall be classified as Mixed Soybeans.

Sec. 26.607. *Soybeans; grade requirements.* Grade requirements for the classes Yellow Soybeans, Green Soybeans, Brown Soybeans, Black Soybeans, and Mixed Soybeans:

Grade	Condition and General Appearance	Minimum test weight per bushel (lbs.)	Moisture (%)	Splits (%)	Maximum limits of—		
					Damaged soybeans (%)	Foreign material (%)	Other colors*
1—	Shall be cool, of natural odor, and of good natural color	56	15	1.0	1.5	0.5	1.0
2—	Shall be cool and of natural odor and may be slightly stained or mottled	54	15	10.0	3.0	2.0	3.0
3—	Shall be cool and of natural odor and may be stained or mottled	52	16.5	20.0	5.0	4.0	5.0
4—	Shall be cool and may be badly stained or mottled and may be slightly frosted or immature	50	18	30.0	8.0	6.0	5.0

Sample grade—Sample grade shall include soybeans of any one of the classes Yellow Soybeans, Green Soybeans, Brown Soybeans, Black Soybeans, or Mixed Soybeans, which do not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contain stones and/or cinders; or which are musty, sour, heating, or hot; or which are infested with live weevils or other insects injurious to stored grain; or which have any commercially objectionable foreign odor; or which are otherwise of distinctly low quality.

*The maximum limits here given for "other colors" shall apply to the grading of "Mixed Soybeans."

Sec. 26.608. *Grade factors; definitions—(a) Basis of grade determinations.* Each determination of class, general appearance, splits, damaged soybeans, and other colors, shall be upon the basis of the soybeans after the removal of foreign material. All other determinations shall be upon the basis of the soybeans including the foreign material.

(b) *Percentages.* Percentages, except in the case of moisture, shall be percentages ascertained by weight.

(c) *Percentage of Moisture.* Percentage of moisture shall be that ascertained by the water oven and the

method of use thereof described in Service and Regulatory Announcements No. 147 of the Bureau of Agricultural Economics of the Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

(d) *Test weight per bushel.* Test weight per bushel shall be the weight per Winchester bushel, as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the Department of Agriculture, or as determined by any device and method that give equivalent results in the determination of test weight per bushel.

(e) *Damaged soybeans.* Damaged soybeans shall be soybeans and pieces of soybeans which are materially damaged by weather, frost, heat, insects, disease, or otherwise.

(f) *Splits.* Splits shall be sound pieces of soybeans, but shall not include soybeans with cracked skins only, or with less than one-fourth of the bean broken off.

(g) *Foreign material.* Foreign material shall be all matter other than soybeans, and shall include all undeveloped shriveled soybeans and pieces of soybeans which will pass through a metal sieve perforated with round holes 10/64 inch in diameter, and all matter other than soybeans that remains on such sieve after screening. Sound fully developed

soybeans which pass through such sieve shall not be considered as foreign material.

A SECRET

An Englishman and a Frenchman were arguing over whose country owned the finer navy. They asked the old Irishman in the corner to settle the argument.

"The Irish have the best navy," he said.

"In heaven's name, where is the Irish navy?" said the other two.

"And what a fool I'd be telling you when you might be a couple of spies!" —Minneapolis Journal.

Safety Contest to Close Gates



IF YOU'RE not already enrolled in the Supers' Society Fourth Annual Safety Contest you'd better hurry and send in your five smackers, says Chairman Oscar Olsen of Peavey Duluth Terminal.

All the leading lights of the Association are enrolled

and have the jump on you.

Imagine your blushing pride as you go up to the platform next June 9-11 at Minneapolis to claim a cup to take back to the diligent crew and the pleased boss.

Don't wait! If you're a member of the Association, just send in your \$5 to the Secretary's office and he'll do the rest. You can't spend so little an amount any wiser, says Contest Secretary M. M. Noxon, of Ralston Purina Company, Minneapolis.



Car Closing Device

A CREW of three men was engaged in closing the door of a box car. Two men were pushing, and one was pulling. The man pulling was grasping the edge of the door with his left hand. The door stuck, and then suddenly started, catching the injured man's fingers between the edges of the door and locking device. Two fingers were so badly crushed that amputation was necessary.

Although these men have been instructed in the safe methods and particularly not to place their hands where they could be caught between the door and the jamb, the accident proved that they were not following instructions. The management realized that in addition to the unsafe act, there also existed an unsafe condition. A closing device is now being used which not only reduces the hazards of the job, but likewise the number of men required to perform the operation.—F. E. B.

WORKS BOTH WAYS

Drunk: "Believe it or not, offisher, I'm looking for a parking plash."

Officer: "But you haven't an automobile."

Drunk: "O, yesh, I have, offisher. It's in the parking plash I'm looking for."

Past President Manning Honored

A beautiful desk set was presented to Mr. Ted Manning of Uhlmann Grain Company, Kansas City, our past National President, at a meeting



of the Chapter on August 20th. Roy Browne of Davis - Noland - Merrill Grain Company, Secretary of the

Chapter at the time Mr. Manning was head of our growing unit, made the presentation. Mr. Manning surely was surprised and from the little "thank-you" talk given by him, and also the expression on his face, the gift was certainly appreciated by him.—Peyton A. Kier, Secretary-Treasurer, Kansas City Chapter; Standard Milling Company.

SURPLUS

The middle aged childless farmer and his wife resorted to prayer that their loneliness might be relieved. Later, they were receiving congratulations on the birth of triplets.

"Prayers are always answered!" exclaimed a piously enthusiastic friend.

"Yes," replied the farmer, "but I never prayed for no bumper crop like that."

Entertaining WEEVIL is COSTLY BUSINESS!



THE accepted estimate of the cost of keeping Weevil, Moth and other insects, and of weevily odor, insect heat, hollow berries and lowering of grade — ranges from 1 to 3%.

You can cut this tax — maybe wipe it out altogether — by treating your grain with LARVACIDE. This powerful fumigant penetrates the kernels, killing egg life and larvae. The dosage is but slightly more than a pint per thousand bushels. Usually a *one-time treatment*, it saves you money and excessive turning.

LARVACIDE helps good housekeeping by cleaning up boots and conveyors after handling weevily grain. Only a few ounces needed for each machine. Detailed instructions for control of Weevil, Moth and other insects, including sterilization of eggs, are given in LARVACIDE literature, FREE on request.

RODENTS

are taken care of by your insect fumigation. They die in the open. No carcass nuisance. Just sweep 'em up.

Larvacide

INNIS, SPEIDEN & CO.

Established 1816

Cylinders 25-180 lbs. and 1 lb. Bottles, each in safety can, 6 and 12 to wooden case. Stocked in cities conveniently near you.

117 Liberty Street

New York

CHICAGO • CLEVELAND • BOSTON • PHILADELPHIA • OMAHA

with LARVACIDE you'll spend

LESS TIME ON INSECT CONTROL—and HAVE MORE TIME TO GO FISHING

DO FOGS AND TIDES DECREASE VULNERABILITY?

Everyone's talking about it! Nobody seems to know for sure. Maybe you think fogs and tides DO decrease vulnerability, but those who have experienced what often happens when dense clouds of fog arise can prove you're wrong . . . that you never can be certain of escaping the tides of destruction if your plant is a fog of dust. You know that fine grain dust floating in the air is as volatile as powder . . . one spark and a bursting wave of smashing, flaming force will wreak havoc throughout your plant.

Why not get rid of this potential menace, especially the fine floating dust which so readily reacts to any accidental friction, sparks, or static?

ROBERTSON SAFETY VENTILATORS will clean out the floating dust by means of a continuous gravity action.

In case of an explosion, they greatly reduce the possibility of still more dangerous secondary explosions by continuously venting gases and dusts and preventing pressures from building up.

ROBERTSON CAPACITY BIN VENTILATORS will remove air displaced by grain thus giving balanced ventilation and preventing back-drafts. The displacement air in garner and scales is adequately cared for by a direct connection to the roof.

ROBERTSON PROTECTED METAL ROOFING has proved its worth under hard usage and severe climatic conditions the world over. Asphaltic and asbestos coatings make it resistant to fire, corrosion, and all weather conditions. It gives the ultimate in service with little or no maintenance costs.

Write for catalog.

H. H. ROBERTSON CO.

Farmers Bank Bldg.

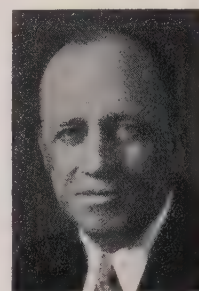
Pittsburgh, Pa.

Must Peddle Own Bananas

"**M**OST of the public do not know about big business and what it is. Most of the politicians do not know. If business men cannot instruct the people, then perhaps they do deserve to disappear from the scene, for they will prove themselves unable to lead not only their own class but also all classes in the only way of life which is fundamentally worth while to all Americans and that is the American way."—James Truslow Adams in Barron's Weekly.

On Scoring Glass To Vent Explosions

C. J. ALGER, Corn Products Refining Company, Argo, Ill., contributes their regulations on the scoring of window glass for the venting of dust explosions. In this connection it is again called to your attention that in some of the more recent blasts the windows were passed up by the force of the explosion in many instances and instead huge blocks of concrete wall blown out. Window glass is known to withstand a terrific pressure, thus the following should be a coveted guide:



Glass can be readily scored with a regular glass cutter. Only enough pressure is necessary to penetrate the surface in a continuous, uninterrupted line. The scoring line should begin about two inches from one corner and extend straight to the opposite diagonal corner—except for a two-inch gap where the two diagonal lines cross. The scored side of the sash must be on the "out" or weather side of the sash in all cases.

Scoring of glass may be done after it is placed in sash. It is practical to place a non-bending support, such as a smooth piece of wood or metal, against the under side of the glass being scored to prevent deflection from pressure in applying the cutter—thus preventing the starting of a fracture with the resultant premature breakage.

It is advisable to use a non-hardening glazing putty, such as A. C. Horn's "Vulcatex," instead of the usual grade of putty which hardens. This is done to lessen the effect of the vibration in the sash produced by opening and closing it.

Remember, the film must be etched or cut through!

This reduces the breaking strength from 500 to 800 pounds per square foot to 100@140 (steel wheel cutters) and 75@80 (diamond).

SCRUTINIZING MODERNIZATION

By E. E. Grant

Cargill, Inc.
Superior, Wis.

BY modernization we usually refer to taking advantage of improvements made in design, in construction, in methods that will result in reduced costs, continuity of operations, better and more pleasant surroundings in which to work or live, and those improvements which make for better health and safer working conditions. Any improvements made in working conditions can not always be measured in a saving of dollars and cents, but there is no question that they do contribute to the well-being and health of the employees and, where needed, they justify in most instances, the expenditures made for them. Those improvements made to make a plant a safer place in which to work are in themselves not always a predictable measure of their value, but there is the satisfaction of knowing that, insofar as is humanly possible, known hazards have been eliminated.

▲ In the matter of modernization in methods and of equipment in plants, the need and value of any that might be considered are problems for each individual plant. We can possibly all visualize the joy with which some of the early Superintendents welcomed the replacement of the long, heavy, cumbersome vertical belts with which his legs were drawn from a main shaft, by rope with its quietness, added flexibility and greater efficiency. It did not mean, however, that all houses were immediately equipped with similar drives but rather that the improvements were gradual through the rebuilding of the earlier houses after destruction by fire, or their demolition in order that advantage of savings might be effected through construction that would take advantage of still more improvements.

▲ Houses that are used principally for storage would not justify expenditure for modernization that possibly would effect savings in handling cost in a plant that was being worked continuously.

Wouldn't Buy Wife Washer

THERE have been few fundamental changes over quite a long period in the method of receiving, binning and loading up grain. We elevate from pits with bucket elevators and distribute with belts and by gravity. There have, however, been improvements in the design of equipment that have demonstrated their value through increased economy of operation and freedom from breakdown delays. On

careful analysis, adoption of some of them may be justified. Improvements in cleaning equipment today permit the cleaning of grain in one operation that used to, at times, take several operations. Improvements will continue to be made and while we cannot take advantage of all the improvements that are made, we should not be like the man that would not buy his wife a washing machine because they were, over a period of time, bound to be improved.

▲ Any changes made in a modernization program, either in plant improvement or better working conditions should be considered from the standpoint of the savings it might effect in relation to its cost and the adaptability to each individual plant, but let me repeat that the provision of a clean, safe place in which to work will usually justify its expense regardless of cost.

Classification and Handling of Dry Wheat

E. J. Raether

Assistant to Secretary, Minneapolis Chamber of Commerce

ONE of the problems that they had in the Omaha district was the prevalence of broken or scuffed wheat in the country arrivals at their market, due more or less to efforts on the part of the operators of combines and threshing rigs to secure all of the wheat in the heads and avoid loss to the farmer. In securing this 100 per cent efficiency in threshing, operators set their concaves as close as possible and in so doing caused increased breakage and scuffing.

Another factor contributing to the split bran coating and scuffing was due to the dry harvest in territories where wheat is shocked—followed by rains which tend to wrinkle and loosen the bran—and then a prolonged dry period during which time the inside of the berry seemed to pull away from the bran coating and cause a rough looking berry. I found that in one handling in the elevator this wrinkled and loose bran broke off and scuffing became more visible.

"Scoured" Classification Misstatement

THE classification of this dry wheat was "scoured"—which is a mis-

SNOOPER

The Boiler-Room Cat



Horse sense is a valuable attribute in your employes—but discourage horseplay: it invariably leads to injury and carelessness.

Corn Grind

THE corn grind of eleven refiners of starches, syrups, sugars and other derivatives of corn, for the month of July, 1940, totaled 5,123,031 bushels. This represents corn ground for domestic use only.

Those who never retract their opinions love themselves more than they love truth.—Joubert

statement to quite some degree when it is considered what is known as "scoured" wheat in the grain channels. The handling of this wheat did not disguise any inferior quality—there being none present in that wheat, and the removal of the brush end of the wheat which is most affected in handling resulted in increasing the test weight slightly.

This improved the quality whereby millers enjoyed a higher yield of flour since the handling brought about the same condition that is necessary in preparing the wheat before it goes to the rolls for milling.

The benefits occurring from the elevator being able to use the low quality wheat most advantageously was reflected to the producer who was unfortunate in not having produced a high test wheat, he getting a better price than he could otherwise hope to get.

All the grain firms there were having difficulty getting this grain delivered without the notation "scoured," and I contend that the classification given to this class of wheat in Omaha is not correct.

Keep It in Mind

NEXT June 9-11th ought to be a high spot in your life, according to



Paul H. Christensen, Van Dusen-Harrington Company, First Vice President of the Superintendents' Society, for we're making some "dark, hard, Northern" plans for the 12th Annual convention here in Minneapolis.

Talk Shop; Plan Year

Shop! Shop! Shop! We talked plenty of it at a spontaneous meeting prompted by Chapter President Claude Darbe, Simonds-Shields-Theis Grain Company, on August 20th at the Phillips Hotel. Claude thought it would be a good idea if we called all the Superintendents and Assistants together for a dinner, not for a business session, but merely a get-together and get-acquainted affair. (There have been quite a few changes here.) Everyone subscribed to the thought and a couple of dozen turned out for a most pleasant discourse. Our last meeting was held in June.

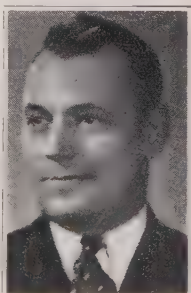
The avalanche of new grain is subsiding a bit right now so we will inaugurate our series of regular monthly meetings on the third Tuesday of each month—commencing with September 17th. The Officers, Directors and Committee Chairmen of the Chapter will meet at my home on September 5th and conclude plans for the year's work.—Peyton A. Kier, Secretary-Treasurer, Kansas City Chapter; Assistant Manager, Standard Elevator & Grain Division, Standard Milling Company, 622 Dwight Building.

The other chapters will probably follow the Kansas City Chapter in activity as they too finish up their rush season. The idea of having the chapters having non-business get-together meetings is really a good one, it is sure to spread to all the chapters.

Saw Stars?

IS HE ever proud and happy over his star? Well, why not, he has reason to be.

Gilbert P. Lane, Plant Manager of Arcady Farms Milling Company, Riverdale, a Director of the Supers' Society, was awarded a diamond studded gold star for meritorious service not so long ago. He's reticent about telling the series of incidents leading up to his



decoration, but he'll show you the star if you catch him in an unguarded moment.

Gil says it won't help any wayward brethren escape the hoose-gow, however.

Supers Move Around in Kansas City

WE ARE mighty proud to have Mr. Harold A. Hantz supervising the work at our Missouri-Pacific Elevator B. Ward E. Stanley, formerly with the Chicago Great Western Elevator, is assisting Mr. Hantz.

Other changes at Kansas City are: Roy Harp has gone from the Alton Elevator to the Chicago Great Western Elevator for Wolcott and Lincoln; a Mr. Duncan is now Superintendent at the Salina Terminal Elevator Company's Alton Elevator with Estell Everett, formerly of the C.G.W., as his Assistant; Mr. W. J. Rice, formerly Assistant at the Wyandotte Elevator of Standard Milling Company, is now Superintendent; Mr. Frank McDermott, formerly Superintendent of the Norris Elevator, is now Superintendent of Ismert-Hincke and Rodney Milling Company's elevators; Eric Matson is Superintendent of operation and O. E. Kinman is Superintendent of grain at the Milwaukee Elevator of Cargill, Inc.; Mr. Wayne Anderson has been made Assistant to A. C. Renner at Norris Grain Company's "Norris" Elevator; Cliff Winslow is Superintendent and Mr. Winkelpack his Assistant at the Burlington Elevator for Norris Grain Company.

All except four new gentlemen are members, and they'll join soon. Peyton A. Kier, Secretary-Treasurer, Kansas City Chapter; Assistant Manager Standard Elevator & Grain Division, Standard Milling Company, 622 Dwight Building.

The modern home is one in which a switch regulates everything but the children.—The Staley Journal.

Wheat Supplies

Wheat supplies in the U. S. in the year beginning July 1, 1940, are fully large enough to take care of domestic needs, export probabilities, and a substantial carry-over at the end of the year. The domestic utilization of wheat for food varies little from year to year; during 1940-41 it is expected to approximate 508 million bushels. After allowing for probable feed and seed requirements, the quantity of wheat available for export or for carry-over into 1941-42 will probably be about 330 million bushels. About 46 million bushels were exported in 1939-40 and trade opportunities may be somewhat less during the year ahead. If exports in 1940-41 should total about 40 million bushels, the carryover of July 1, 1941, would be about 290 million bushels.—From "The National Food Situation," U.S.D.A.

Arvid Anderson Still Confined

ARVID ANDERSON, long Superintendent of the Crowell Elevator Company's various plants in the Omaha - Council Bluffs market, "will not be able to work again," writes Mrs. Anderson, whom many met at the Fort William-Port Arthur convention in 1937. Confined since September of last year, Mr. Anderson has put up a brave fight to regain his health. An early member of the Superintendents' Society, Number 11 on their official rolls, Mr. Anderson has attended most of this association's affairs. His home address is 9628 North 29th street, Omaha.



Geo. Lindburg Recovering

GEORGE Lindburg, President of the K. I. Willis Corporation, bucket manufacturers of Moline, Ill., returned to his office recently after two months of serious illness. His many friends will be glad to know he is recovering as rapidly as can be expected.

SHUTTING ONE EYE HELPS

Does the glare of strong headlights bother you when you are driving or walking along a very dark road?

Here is a way to prevent it, discovered in England's blackout. Shut one eye when the bright light approaches and open it again when the car has passed. The eye you closed will then be as sensitive as before.

Bugs Kill More than Bullets

FLU killed a half million Americans in 1918, ten times as many as were killed in the war. Five millions were killed in India and other countless numbers from the battlefield to Africa and the Fiji Islands. The 1918 epidemic was paralleled only by the plague of Justinian's reign and the 14th Century Black Death.

Working at It

WE ARE trying to organize a Chapter of the Superintendents' Society around here to be called the Georgian Bay Chapter. We want to know the set-up of such units as the Society has at Minneapolis, etc.—Jim Shaw, Canadian Pacific Railway Elevator, Port McNicoll, Ont.



Corn Was Corn to John

CHARLES F. WALKER

Archer-Daniels-Midland Co., Council Bluffs, Iowa.

WE WERE loading 2 mixed corn for store, and I had an Austrian for a helper on the mixing floor. Being up to the office for a short while, I sauntered out on the loading track and stepped up to the loading spout, grabbed a handful of corn, and to my surprise it was choice 2 yellow corn coming down the spout. I raced to the floor and found some of Wilson's choice yellow going up. I brought John to the bin board and said, "John, don't you know you should not use that special bin corn?" He replied, "Corn is corn."

Kept Queer Date Book

GARY was a Scot, and usually fell on the short end of every joke. One of his friends called on the phone to ask what his seal record was on Q99456 handled on July 35th last. Gary thumbed the pages of his book to where July 35th should be, and said, "It must be in my other book," not realizing it was just a joke.

Boss Got His Goat

SOMEONE donated a husky live billy goat to the elevator and due to the environment he became harder and harder. The Super was stooping over to tie his shoestring, when BAM the goat hit the boss and stretched him all four ways for Sunday. That was nearly the end of the goat, but he did manage to survive.

One day we were running along nicely with grain on all legs, and having a steam plant the house started to shut down. We shut off the grain and went out to the engine room to see what was the matter. There the engineer declared he got a bell to shut down, and he did. This happened a number of times. Each time no one could account for the bell, so we thought the engineer had dozed off and dreamed he had heard a bell.

The bell cord hung along one of the pillars about four feet from the floor and had a large knot on the end. In a day or so I happened to see Mr. Goat jumping up to see if he could catch the knot, and so HE had been the one that had been shutting down our house so mysteriously, and That was the end of the goat.

Disappearing Leg

WE WERE drying corn and our drier leg had a self adjusting boot pulley. One morning our drier man came rushing in and in a very excited manner shouted:

"Hot dammit, Charley, she's gone!"

"What is gone, John?" I said.

"The leg, Charley, she's gone."

"Is it down, John?" I asked.

"No, Charley, she's gone."

I walked over and the leg was not where a good leg should be, but as I looked up, there it was just above my head. It had choked and pulled itself up out of sight.



SPECIALIZATION AND EXPERIENCE

Since dust produced by the handling and processing of grain has been known to be a hazard to human life, health and property, the "Day" name has been synonymous to Dust Control.

Constant application to this problem and continuous striving to improve equipment and practices has resulted in greatly improved operation.

That is why "Day" engineered and installed systems are now recognized by grain processors and handlers everywhere as the standard in efficiency and economy in modern Dust Control.

The DAY Company

2938 Pillsbury Ave.

Minneapolis, Minn.

In Canada, The Day Company of Canada, Ltd.

Omaha Active

WE EXPECT to open our Fall and Winter season of monthly meetings after a lapse of only one month. We'll meet at the Omaha Grain Exchange where some bake tests on bread and biscuits will be conducted from various wheats and flours for the enlightenment of our Chapter members.

We had a dandy meeting the early part of July in the Chemist's Office of the Omaha Grain Exchange. Under the direction of Harry R. Clark, Chief Inspector, and Jim Doty, Chief Chemist, we were shown a lot of the fine points about flour milling, what types of wheat were best, what gave the best yield, etc. We're really having some fine affairs out here.—Charles F. Walker, Archer-Daniels-Midland Company, Council Bluffs, President.

Yes, and Only 136 Days Off

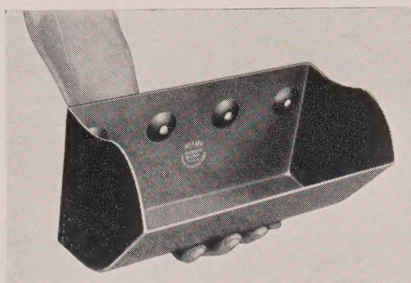
WITH temperatures of 29 being currently reported from Fort William (br-r-r-r) we anticipate that various Chapters of the Supers' Society are turning their thoughts towards their semi-annual "Managers" meeting, their Christmas dinner-dance party, and a brim-full year of regular monthly business sessions.

Minneapolis had 46 Managers and Supers in attendance at their last affair, Kansas City 52, Omaha 8, and Chicago ? Then, too, Christmas is only 136 days away from this writing.

New High Capacity Elevator Bucket

A NEW bucket, especially designed for grain and granular material, guaranteed to increase capacities from 10 to 100%, is just being placed on the market by the Screw Conveyor Corporation of Hammond, Indiana, specialists in elevator buckets, screw conveyors and allied equipment.

This "NU-HY" bucket is the result of years of intensive research and study of "bucket behavior" and when



installed under identical conditions as the old style of bucket, it has shown such startling results as to establish a precedent over any other style of bucket, according to Russell Maas, Vice-President. By replacing old style buckets, he says, capacities can be increased up to 100%. Changes in speed and changes in head or boot design are unnecessary. Existing space must

be far enough apart to facilitate closer spacing so that more buckets may be placed on the belt.

A "Condensed Application Information" folder has been prepared, available upon inquiry, which contains complete data for installation of the "NU-HY," with tables for minimum spacing requirements, belt speeds for various pulley sizes, capacity formulas, and methods of figuring horsepower. The folder and Capacity Analysis, Form 76—to analyze your problem—may be obtained by writing 730 Hoffman St., Hammond, Indiana. The enclosed post card may be used for your copy.

President Poulton Injured

PRESIDENT Percy C. Poulton, N. M. Paterson & Company, Ltd., Fort William, severely hurt his hip playing baseball on August 5th, suffering the agonies of excruciating pain at last writing.

Harold Wilber Recovers

HAROLD Wilber, Superintendent of the A. E. Staley Mfg. Company's elevator at Decatur, Ill., just returned to the job August 15th after a six weeks' absence due to sickness. We haven't been able to learn whether Harold had the mumps or what, but hope he's feeling tip-top by now. Gotta get ready for all that corn and soybean movement, Harold.

Same Bett - Same Speed - Same Casing -
BUT - 10% TO 50% MORE CAPACITY!

THE Nu-Hy
GRAIN BUCKET

TRADE MARK REG. U. S. PATENT OFF.

Outperforms any other type of elevator bucket for grain or granular materials. And more than all, the Nu-Hy is equally efficient at low, intermediate or high speeds. Its unexcelled pick-up and discharge efficiencies are immediately noticeable, whether the bucket is spaced or mounted continuous on belt.

Our guarantee is made possible through years of research and development, backed by actual records in numerous installations.

Write for a sample bucket and capacity analysis form, No. 76, which will enable us to uncover any hidden inefficiencies in your elevator and make guaranteed recommendations. No obligation.



Note
One-Piece
Stream-
lined
Construc-
tion

The "NU-HY" Bucket is revolutionary due to its unique bottom and high positioned front lip, which, acting in unison with the high sweeping sides raised above the strike line, produces efficiencies heretofore considered impossible. The bucket is of streamlined, one-piece, strong, welded construction. No bands or overlaps are used, hence there are no pick-up or discharge obstructions.

Screw Conveyor Corporation
707 HOFFMAN ST. HAMMOND, IND.

SCREW CONVEYORS



ELEVATOR BUCKETS

TRADE MARK REG.

U.S. PAT. OFFICE

You're Bound to Win in the Annual Safety Contest

YOU can't possibly lose, for there are no blanks in this game. You win every time.

It's true there are only four silver cups to be awarded to the holders of the best safety record during the year ending next June 30th. But the real winners may not have the best safety records. The real winners will be those who have avoided the greatest number of accidents. Those who have saved a life, protected an employe from loss of a limb or taught their crews to be careful. They may not win silver cups, but they will win the real battle.

Join in this campaign to reduce accidents by removing the causes for accidents. Help your industry reduce the accident rate, the cost of insurance, the tragedy of crippled men. Join today.

FOURTH ANNUAL SAFETY CONTEST

Society of Grain Elevator Superintendents

4100 Board of Trade Building
Chicago, Illinois

Do We Have Yours Right?

WAS this issue of "GRAIN" addressed correctly to you? It's naturally a colossal task to keep so many names always 100% correct, such as we try to do. So we'd appreciate your help. If your name, initials, firm name, street address or post office box is incorrect in any detail, won't you kindly give us the corrections on the card enclosed with this number? Thanks.

Also, we invariably try to see that the Managers of all terminal and sub-terminal elevators and processing plant elevators receive each month's "GRAIN." To make sure that everyone in your organization who is concerned with the problems taken up in this publication receives it, just fill in their names on the post card along with their titles, and we'll do the rest. Thanks again.

UNLOVELY TRAITS

What causes a man to be disliked?

1. Failing to keep his promises.
2. Being unwilling to go out of his way to help others.
3. Indulging in exaggerations.
4. Being sarcastic.
5. Showing off how much he knows.
6. Exhibiting superiority.
7. Bossing people whom he does not employ.
8. Reprimanding people for acts he disapproves.
9. Being caught at making fun of people behind their backs; and
10. Dominating people openly.

Besides It's Good for Filling Teeth

Many people are worrying over the future of the gold standard. They say things like this:

"If Hitler wins, barter will replace the present system of international business and render gold useless as a medium of exchange;" or

"The government has made the price of gold too high;" or

"The vast accumulations of gold we have are useless, inert."

The answers are that barter is too primitive a method of doing business and was just a means to an end for Hitler. Once he gets gold, he'll use it too.

The price of gold is even higher in terms of foreign money. The gold we have in our treasury gives confidence to government creditors, to businessmen, and makes American money the most desirable in the world.

FOREIGN

Father: "Your new little brother has just arrived."

Modern Child: "Where'd he come from?"

Father: "Oh, from a far-away country."

Modern Child: "Another damned alien."

We're in Wrong Business

JACKSON, Wyoming: Having a swell time on our honeymoon. Glad you are not along. Snows making it quite livable while you're having 102 in the shade. Hoping you're the same.—Emil Buelens and bride, The Glidden Company, Chicago.



Callender, Ont.: Weather delightful; vacationing grand; anticipate busiest season in years so resting up in advance.—Ed Frauenheim, Jr., Buffalo (N. Y.) Forwarding Company.

Niagara Falls, N. Y.: Sure having grand weather down this way for my vacation. Fresh breezes keeping this part of country cool and delightful while you swelter. Serves you right.—Lou Ambler, The Glidden Company, Chicago.

Production Begun On Corn Plastics

▲ A new plastic material made from the by-products of corn refining has been put into commercial production by Corn Products Refining Company at its Pekin, Illinois, plant. Known as Mazein, the plastic will be used in the manufacture of buttons, handles and a variety of other moulded products.

Experimental work on the new product was conducted at Argo, Illinois, under the direction of William B. Newkirk who received a "Modern Pioneer" award from the Association of American Manufacturers for his work. The new plant built at Pekin has a capacity for 5,000 pounds of the material daily.

Mazein can be produced in a variety of colors but not in a transparent form. Its cost makes it competitive with other plastics.

Heavy Rains Fall West of Omaha

▲ A large section of Nebraska extending a hundred miles west of Omaha suffered from heavy rains and flood damage during the past few weeks but the territory as a whole benefited by the rain.

Except where fields were inundated crop prospects were better than they have been for some years. The Omaha *World-Herald* recommended a trip through the section as a tonic for pessimistic business men.

"T'WAS EVER THUS

Mrs. Gluck: "I had a lovely time at the bridge party this afternoon."

Mrs. Pluck: "Is that so? Did you win first prize?"

Mrs. Gluck: "No, but I had the best dress."

Wants Lightning Ideas

ONE B. I. Weller, maker and purveyor of "Calumet" buckets, has a serious problem that he believes some of the Supers can help him with. If you have any thoughts on his dilemma won't you drop him a line at 327 S. La Salle Street, Chicago?

It all happened this way: It was a dark and stormy night (about 10 a.m.) and the wind was howling and the thunder thundering. Lightning abounded here and there, so Mr. Weller pulled down the heavy black blind at his factory office, out in East Chicago, Indiana. He never did like lightning, anyhow.

"Crash!" resounded a reverberation that made even Mr. Weller's heavy black shade cringe and snap. "We're sunk," screamed a streaking workman dashing from the rear. Mr. Weller had all he could do to prevent mutiny among the crew.

When the storm had cleared and the ceiling was reported at three miles, Captain Weller and his First Mate "Tony" ventured aft to survey the damage.

"We've been struck amidships," Tony shouted frantically.

"Be calm, First Mate," Captain Weller expostulated, "we're not sunk yet."

Well, to get down to the gist of the situation, the lightning had played tricks on Captain Weller's Juggernaut, but everything is going to be quite all right. The freakish stroke curled around and up under the roofing, struck a brick at the corner of the upper section, completely turning it around. Captain Weller has pictures to prove his story and is expected to appear very soon on "Believe-it-or-not" "Bob Ripley's" radio show.

"Ahoy, Captain Weller, all is well!"

Mailing Piece Explains Cleaners

▲ An eight page mailing piece prepared by the Hart-Carter Company of Minneapolis and sent to mill operators and superintendents explains in detail the construction and operating principles of the Hart-Carter line of cleaning and separating machines.

The booklet is printed in color and carries a return card that will bring specific information for any particular cleaning problem.

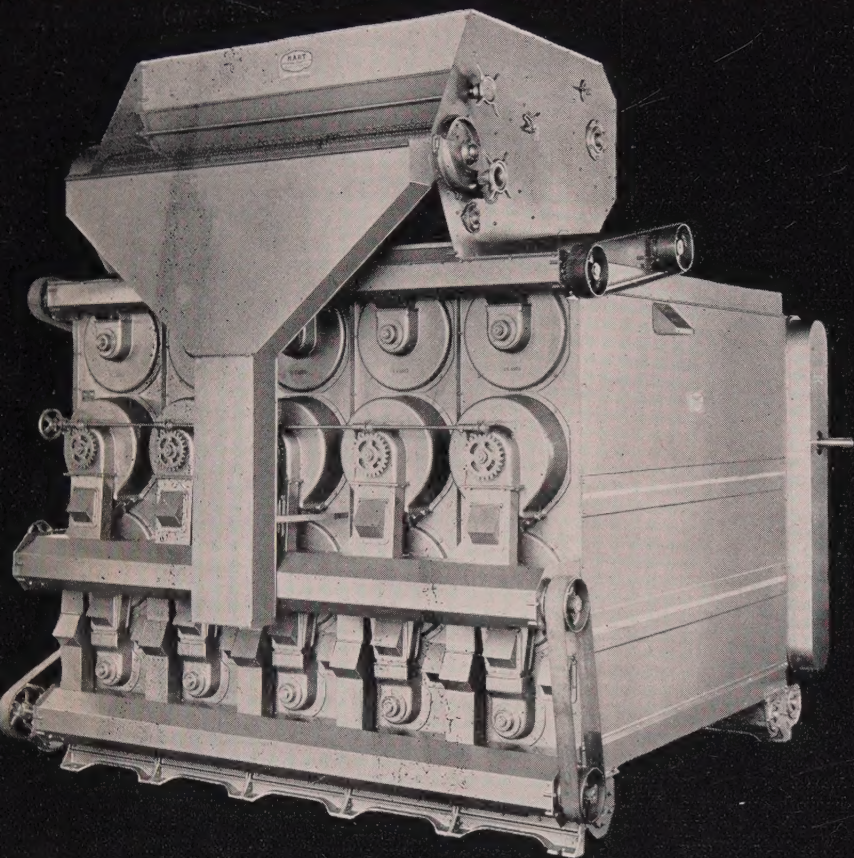
Grain Trades' "North Pole"

MR. C. A. McCALLUM, Superintendent of the National Harbours Board Elevator at Churchill, Man., away up north on Hudson Bay, wants to know what the additional exchange is on another year's subscription to "GRAIN"—his fifth.

We're glad to absorb the exchange on any subscriptions, Mr. McCallum, and thanks for the "buck."



GIANT CAPACITY FOR LONG, HEAVY RUNS



Meets Low Head-Room With High Cylinder Capacity

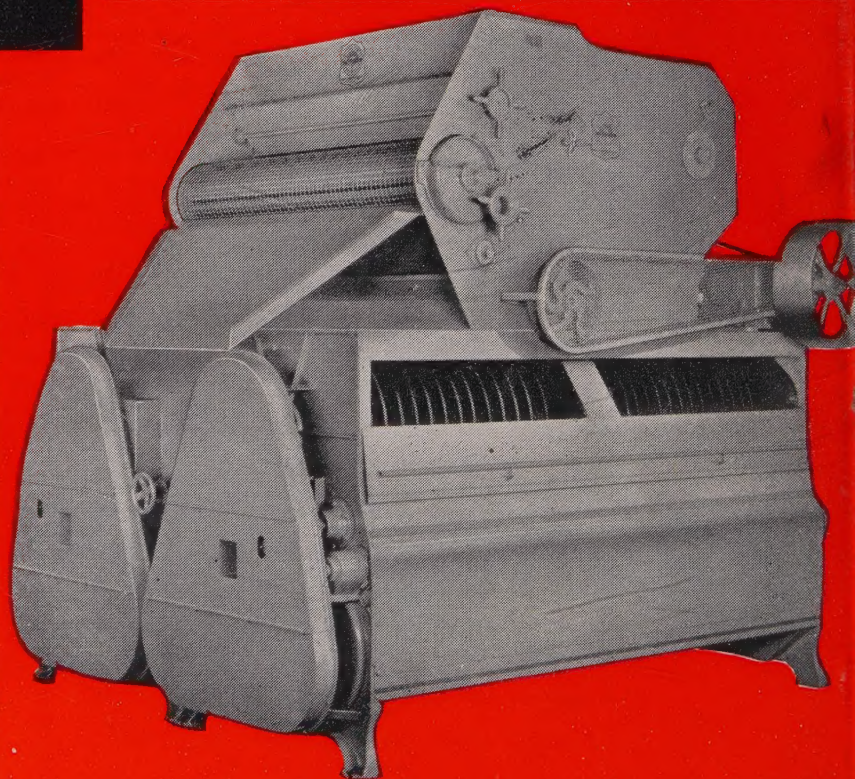
Where big capacity and wide flexibility are required in a cleaner that fits low head-room and operates with a minimum of power—the No. 45 Hart Uni-flow Grain Separator stands without equal in the all-cylinder field. Cleaning at a capacity up to 2,000 bushels per hour and providing effective scalping and aspiration in the same operation, it performs the most rapid and thorough separations under close positive control. Exceptional results are possible with such grains as barley, wheat, rye, durum and oats. The exclusive Uni-flow power-driven mechanism, maintains a uniform flow of grain and a uniform grain line in the cylinders at all times. Take advantage of the big capacity, low first cost and low operating cost of the No. 45 Hart Uni-flow Grain Separator. Get full details and prices without delay.

No. 45

The Most Compact Big Cleaner Ever Designed

In the No. 2564 Carter Disc-Cylinder Separator, Hart-Carter engineers have designed a remarkable equipment value—a cleaner that combines discs, cylinders and the most efficient scalping and aspirating devices in a single unit—a cleaner that offers the utmost in accuracy, flexibility and capacity in a limited space. Extremely compact, fitting low head-room, the terminal size Carter Disc-Cylinder Separator will clean more bushels more thoroughly per unit of floor space and power than any other standard terminal elevator equipment. All-steel in construction, all-enclosed, dustless and quiet in operation, the Carter Disc-Cylinder Separator is a mechanically outstanding machine. Investigate this great value promptly. For greatest efficiency, choose discs and cylinders combined!

No. 2564



HART-CARTER COMPANY

706 Nineteenth Avenue, N. E.

Minneapolis, Minnesota